TITLE: DATA STORAGE MEDIUM HAVING
INFORMATION FOR CONTROLLING
BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 1 (PRIOR ART)

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
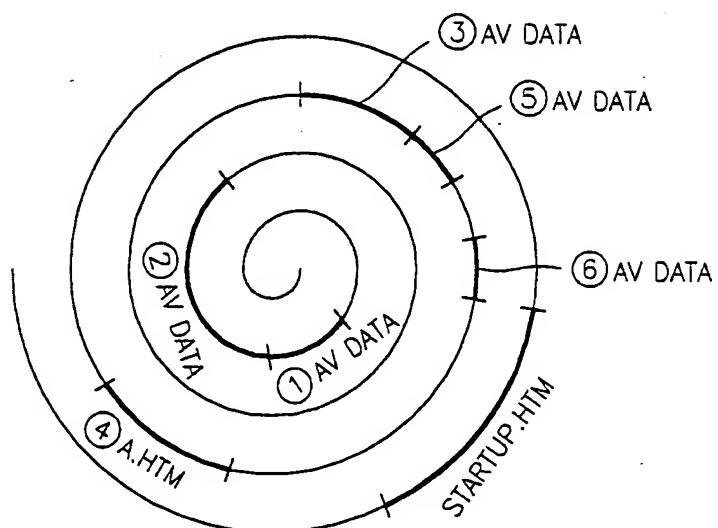DOCKET NO.: 1793.1073

FIG. 2 (PRIOR ART)

TITLE: DATA STORAGE MEDIUM HAVING
INFORMATION FOR CONTROLLING
BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 3

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
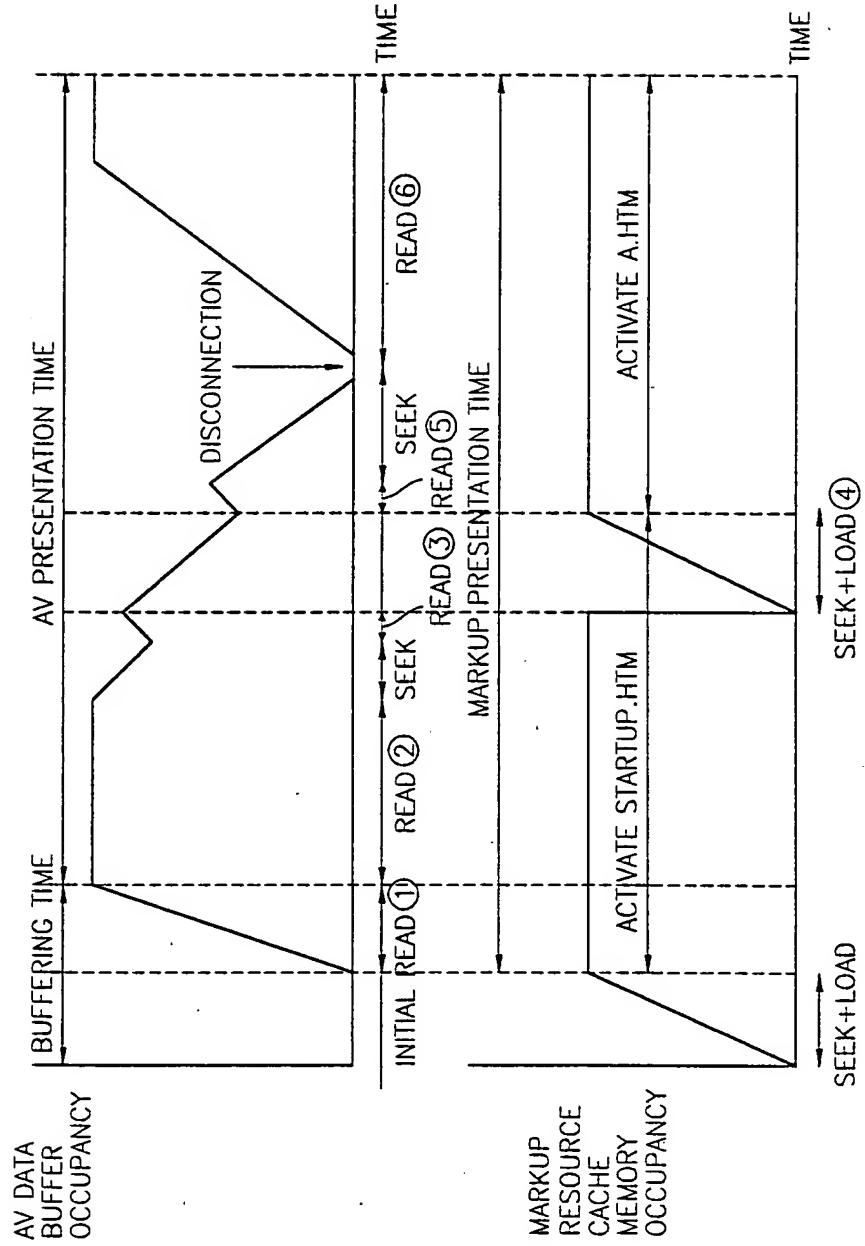INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 4

TITLE: DATA STORAGE MEDIUM HAVING
INFORMATION FOR CONTROLLING
BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 5

VOLUME SPACE

| VOLUME AND FILE CONTROL INFORMATION REGION | DVD VIDEO DATA | DVD INTERACTIVE DATA | OTHER DATA |

VIDEO_TS.IFO/VTS_01_0.IFO/
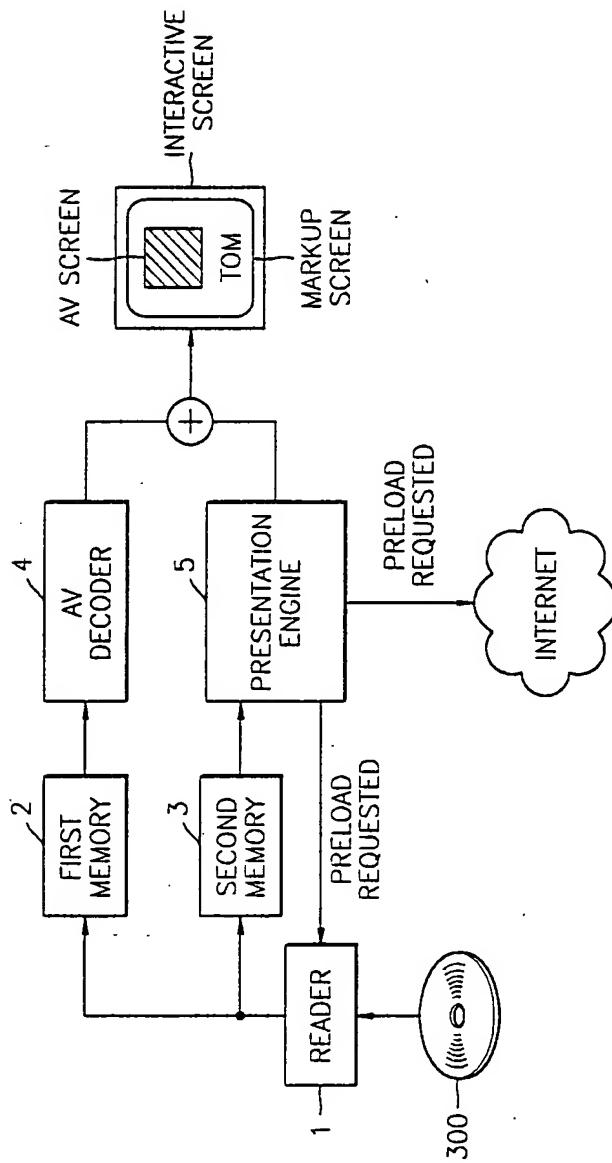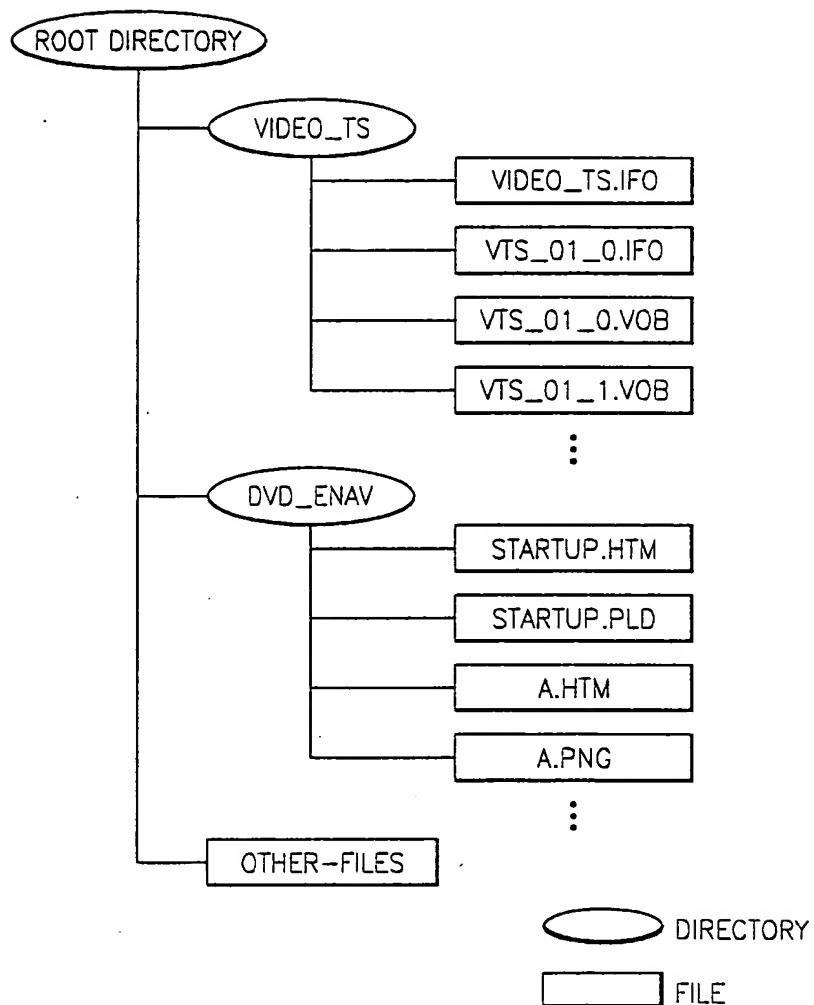VTS_01_1.VOB ...

STARTUP.HTM/STARTUP.PLD/A.HTM
A.PNG ...

TITLE: DATA STORAGE MEDIUM HAVING
INFORMATION FOR CONTROLLING
BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 6

START

READ MARKUP DOCUMENT — 601

INTERPRET
PRELOAD INFORMATION — 602

PRELOAD FILES
INTO CACHE MEMORY — 603

READ AV DATA AND STORE
AV DATA IN BUFFER MEMORY — 604

READ AV DATA FROM
BUFFER MEMORY
AND DECODE AV DATA — 605

READ FILES TO BE PRELOAD
FROM CACHE MEMORY AND
DISPLAY DECODED AV DATA
IN DISPLAY WINDOW DEFINED
BY MARKUP DOCUMENT — 606

END

TITLE: DATA STORAGE MEDIUM HAVING
       INFORMATION FOR CONTROLLING
       BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
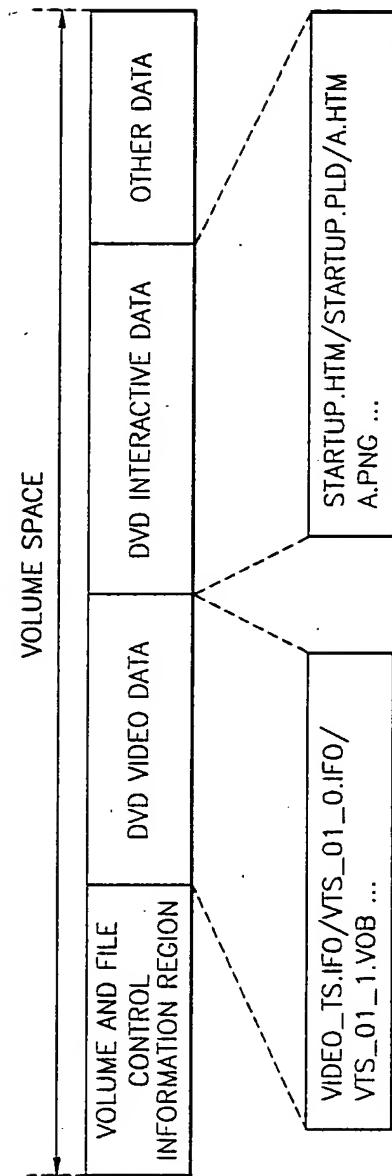SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 7

START

IDENTIFY PATH OF
PRELOAD—LIST FILE — 701

READ PRELOAD LIST FILE
FROM IDENTIFIED PATH — 702

IDENTIFY FILES
TO BE PRELOADED — 703

END

FIG. 8

START

IDENTIFY PATH RECORDED IN
LINK TAG OF PRELOAD—LIST FILE — 801
AND DRAW PRELOAD—LIST FILE

INTERPRET PRELOAD—LIST FILE,
WHICH INCLUDES PRELOAD TAG
THAT HAS PATHS AND
ATTRIBUTES OF FILES TO BE — 802
PRELOADED AS PARAMETERS,
AND PERFORM PRELOADING

END

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
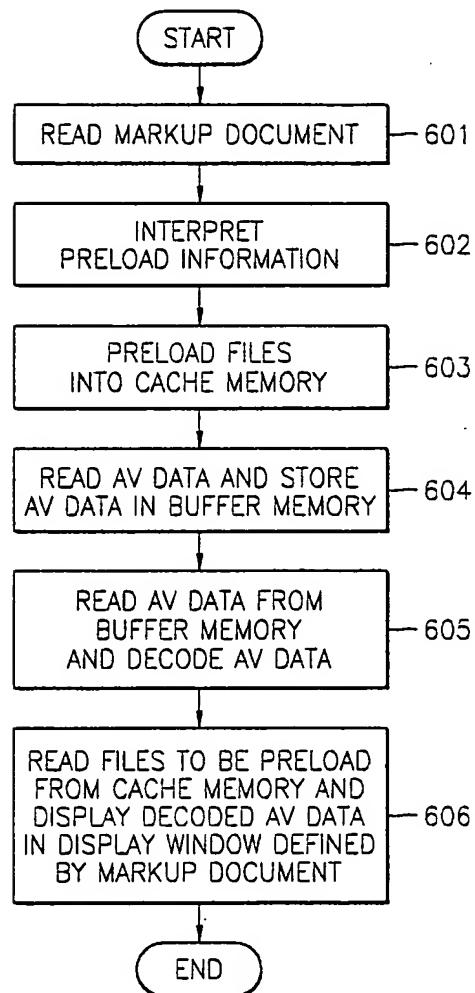DOCKET NO.: 1793.1073

FIG. 9A

```
( START )
    |
    v
CALL API INSERTED INTO BODY TAG
HAVING PATH AND ATTRIBUTE OF          — 901a
PRELOAD—LIST FILE AS PARAMETERS
AND READ PRELOAD—LIST FILE
    |
    v
PERFORM PRELOADING BY
INTERPRETING PRELOAD—LIST FILE       — 902a
THAT HAS PATHS AND ATTRIBUTES OF
FILES TO BE PRELOADED
    |
    v
( END )
```

FIG. 9B

```
( START )
    |
    v
PRELOAD FILES TO BE PRELOADED
INTO MEMORY USING API INSERTED
BODY TAG AND HAVING PATHS            — 901b
AND ATTRIBUTES OF FILES TO BE
PRELOADED AS PARAMETERS
    |
    v
( END )
```

TITLE: DATA STORAGE MEDIUM HAVING
       INFORMATION FOR CONTROLLING
       BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
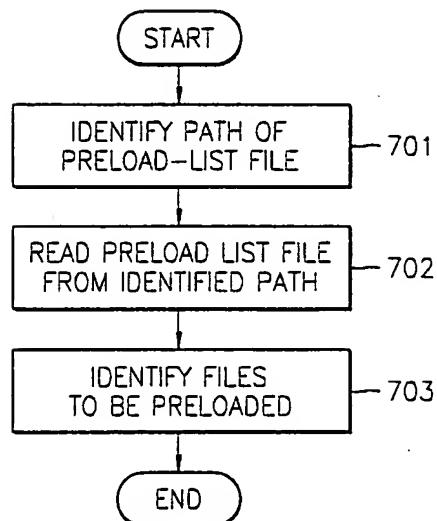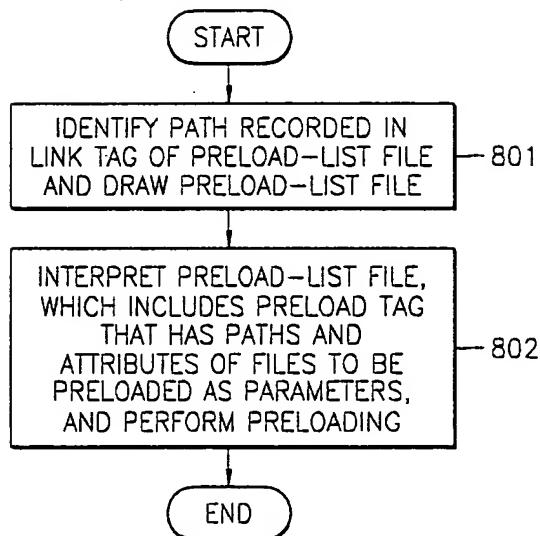SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 10

START

INTERPRET
DELETION INFORMATION — 1001

DELETE FILES
FROM CACHE MEMORY — 1002

END

FIG. 11

START

DELETE FILES LISTED IN
DELETION LIST FILE FROM
CACHE MEMORY USING — 1101
API HAVING PATH OF DELETION
LIST FILE AS PARAMETER

END

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073
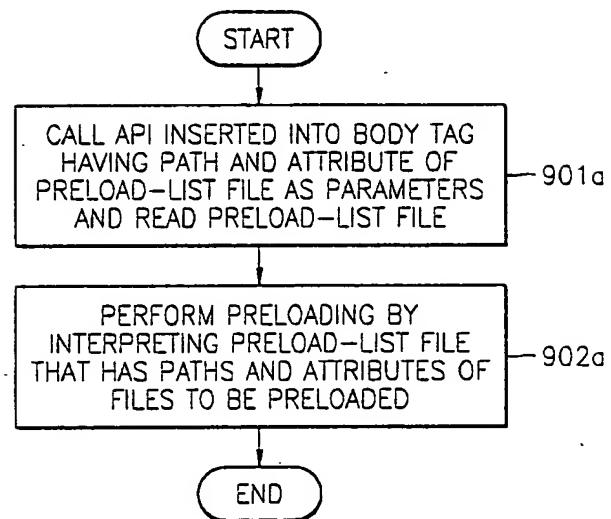
FIG. 12

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 13

FIG. 14

TITLE: DATA STORAGE MEDIUM HAVING
       INFORMATION FOR CONTROLLING
       BUFFERED STATE OF MARKUP ...
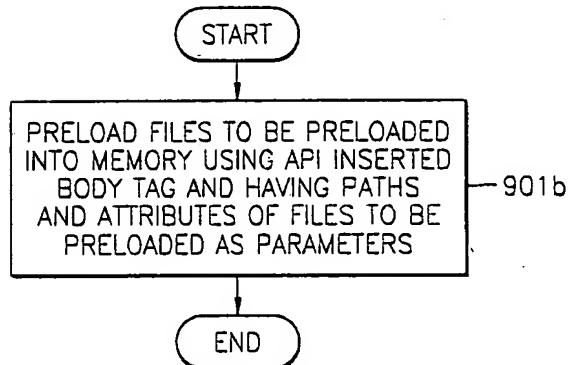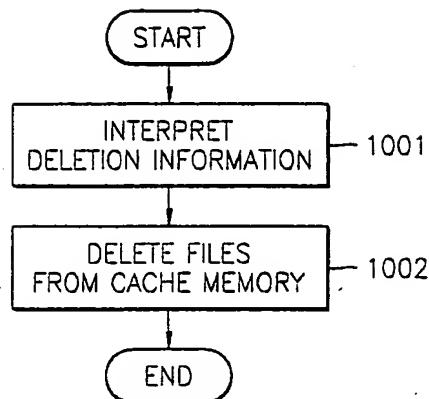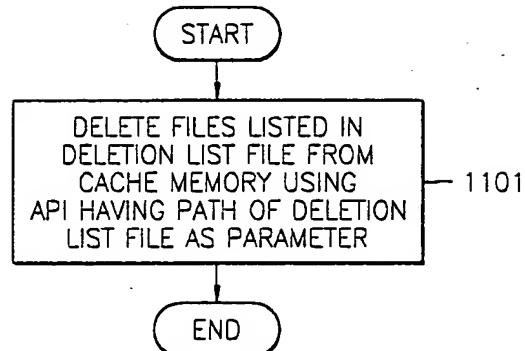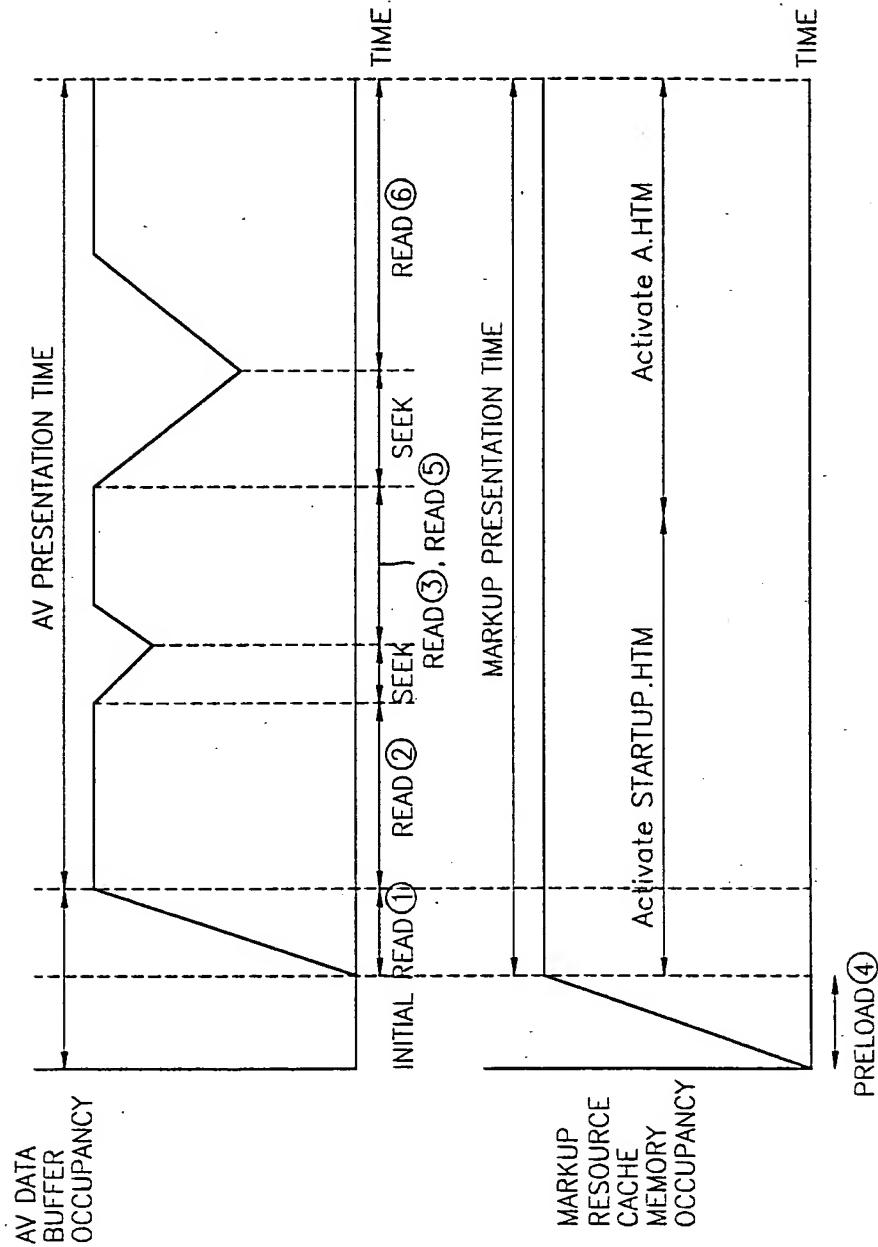INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 15

FIG. 16

```
        ( CONTENT DECODER )
                 │
                 ▼          ╱1601
        ┌──────────────────┐
        │  GENERATE FETCH  │        FETCH SIGNAL
        │ SIGNAL IN RESPONSE│─────────────────────►
        │ TO PRELOAD COMMAND│
        └──────────────────┘
                 │              READ
                 ▼       ╱1603  NECESSARY
              ╱       ╲         MARKUP
             ╱  HAVE ALL ╲  NO  DOCUMENTS
            ╱ MARKUP DOCUMENTS ╲────────────
            ╲  BEEN READ?  ╱
             ╲         ╱
        ┌────────┐╲  ╱  YES      REPORT SIGNAL
        │ ERROR  │ ▼            AND RESPONSE
        │PROCESSING│              THRETO
        │ (1604) │
        └────────┘
                 │          ╱1606    RETRIEVE
                 ▼                   SIGNAL
        ┌──────────────────┐
        │ GENERATE RETRIEVE │────────────────────►
        │ SIGNAL IN ORDER TO│    MARKUP
        │USE MARKUP DOCUMENTS│   DOCUMENTS
        └──────────────────┘◄────────────────────
                 │          ╱1608
                 ▼
        ┌──────────────────┐
        │     PRESENT      │
        │ MARKUP DOCUMENTS │
        └──────────────────┘
                 │          ╱1609    RELEASE
                 ▼                   SIGNAL
        ┌──────────────────┐
        │    GENERATE      │────────────────────►
        │  RELEASE SIGNAL  │
        └──────────────────┘
                 │          ╱1611    DISCARD
                 ▼                   SIGNAL
        ┌──────────────────┐
        │ GENERATE DISCARD │────────────────────►
        │     SIGNAL       │
        └──────────────────┘
                 │
                 ▼
             ( END )


        ( BUFFER MANAGER )
                 │
                 ▼          ╱1602
        ┌──────────────────┐
        │ RECEIVE FETCH SIGNAL│
        │ AND START TO READ │
        │   DESIGNATED     │
        │ MARKUP DOCUMENTS │
        └──────────────────┘
                 │          ╱1605
                 ▼
        ┌──────────────────┐
        │   RESPONSE TO    │
        │  REPORT SIGNAL   │
        └──────────────────┘
                 │          ╱1607
                 ▼
        ┌──────────────────┐
        │ RECEIVE RETRIEVE │
        │ SIGNAL AND TRANSMIT│
        │    DESIGNATED    │
        │ MARKUP DOCUMENTS │
        │ TO CONTENT DECODER│
        └──────────────────┘
                 │          ╱1610
                 ▼
        ┌──────────────────┐
        │  RECEIVE RELEASE │
        │ SIGNAL AND DECREASE│
        │  COUNTER VALUE   │
        │ INDICATING NUMBER │
        │ USE OF DESIGNATED │
        │ MARKUP DOCMENTS  │
        └──────────────────┘
                 │          ╱1612
                 ▼
        ┌──────────────────┐
        │  RECEIVE DISCARD │
        │ SIGNAL AND DELETE │
        │   DESIGNATED     │
        │ MARKUP DOCUMENTS │
        │  FROM ENAV BUFFER │
        └──────────────────┘
                 │
                 ▼
             ( END )
```

TITLE: DATA STORAGE MEDIUM HAVING
        INFORMATION FOR CONTROLLING
        BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
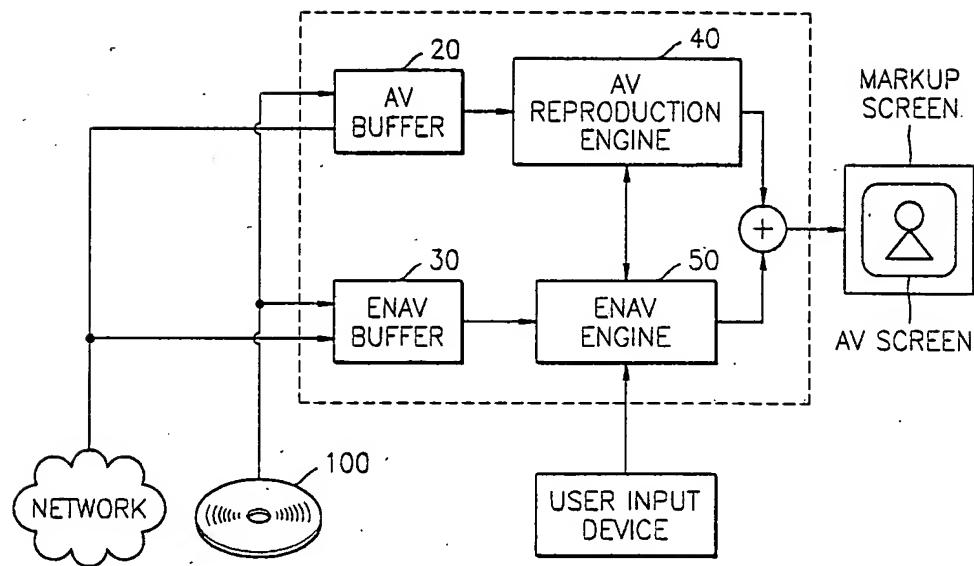SERIAL NO.:
DOCKET NO.: 1793.1073
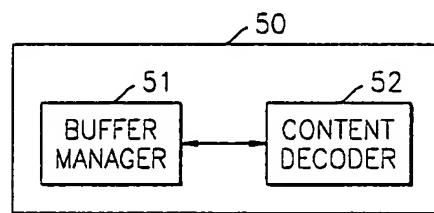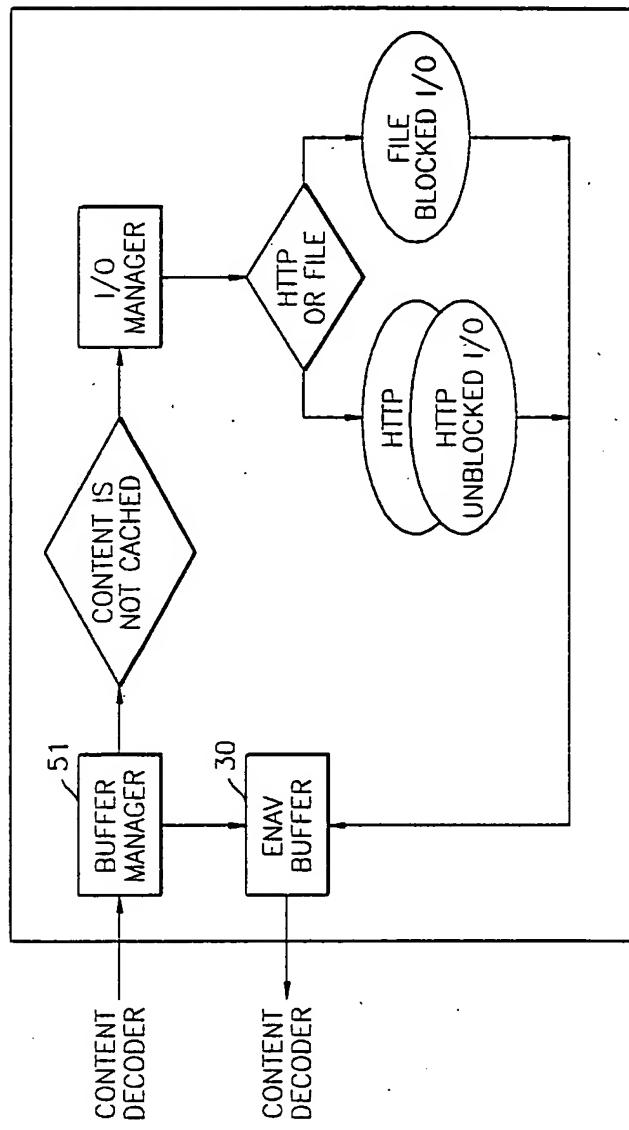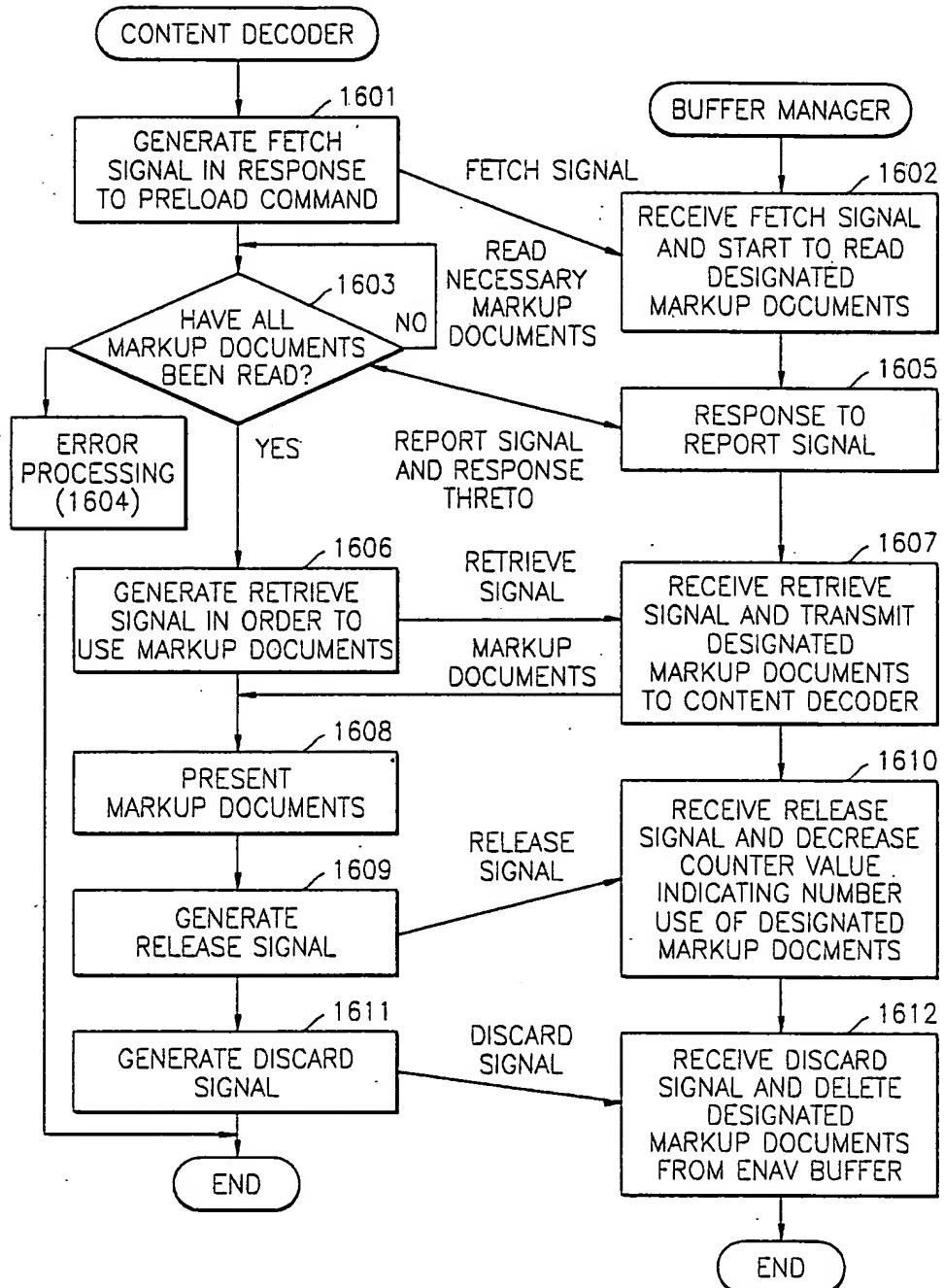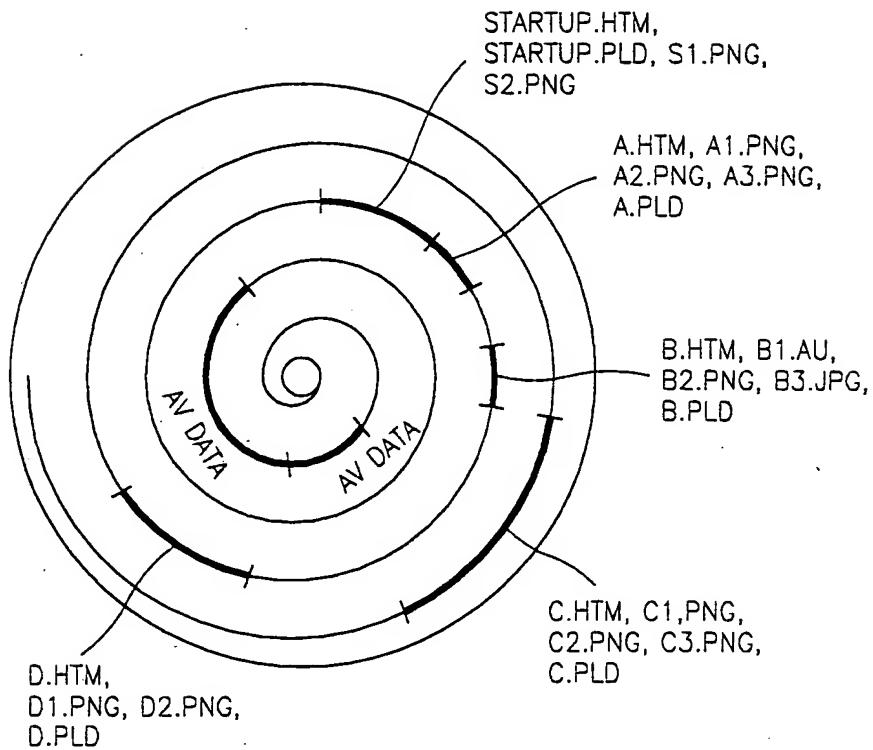
FIG. 17

STARTUP.HTM,
STARTUP.PLD, S1.PNG,
S2.PNG

A.HTM, A1.PNG,
A2.PNG, A3.PNG,
A.PLD

B.HTM, B1.AU,
B2.PNG, B3.JPG,
B.PLD

C.HTM, C1,PNG,
C2.PNG, C3.PNG,
C.PLD

D.HTM,
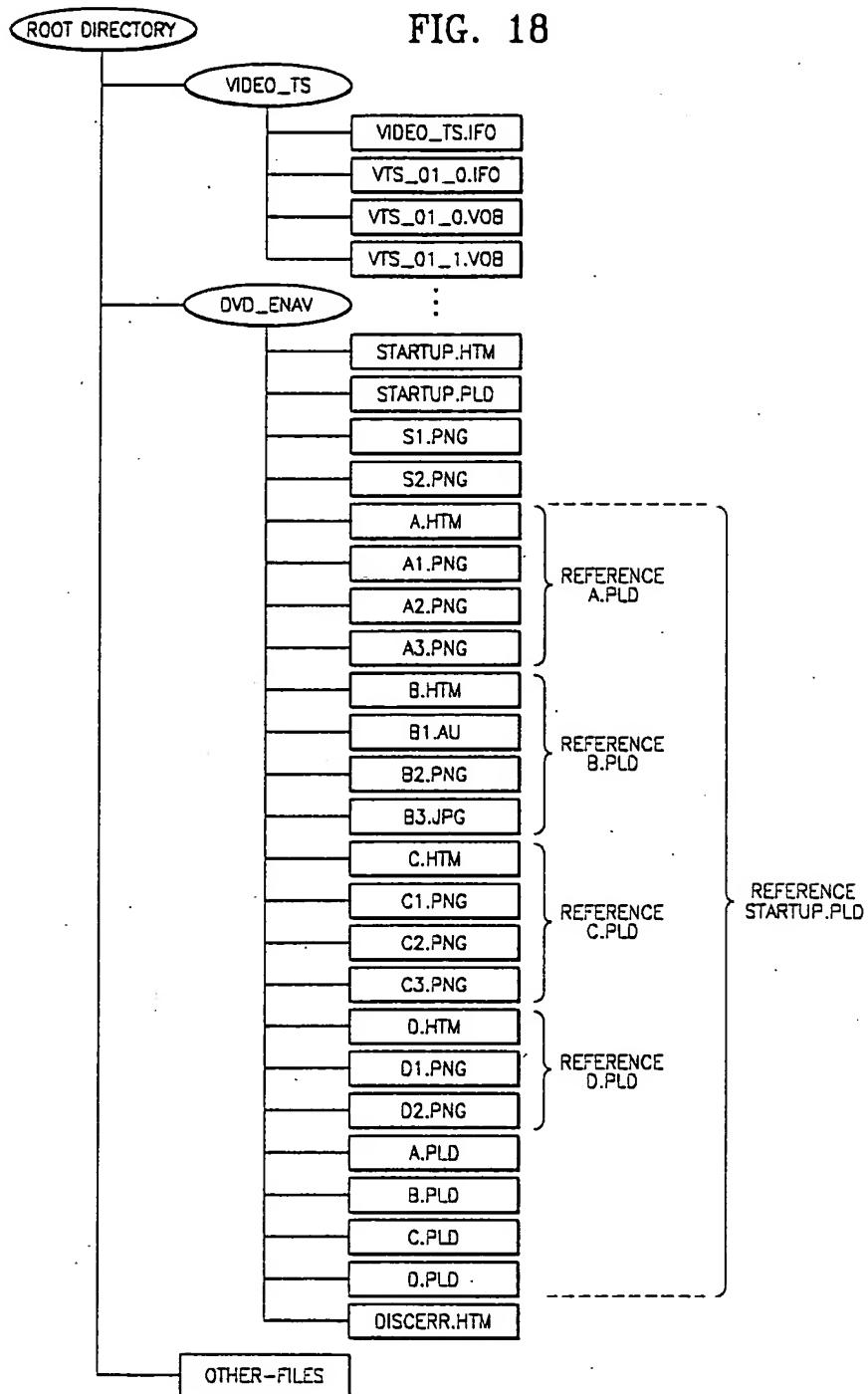D1.PNG, D2.PNG,
D.PLD

AV DATA

AV DATA

TITLE: DATA STORAGE MEDIUM HAVING
       INFORMATION FOR CONTROLLING
       BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 18

ROOT DIRECTORY

VIDEO_TS

VIDEO_TS.IFO

VTS_01_0.IFO

VTS_01_0.VOB

VTS_01_1.VOB

⋮

DVD_ENAV

STARTUP.HTM

STARTUP.PLD

S1.PNG

S2.PNG

A.HTM

A1.PNG

A2.PNG

A3.PNG

REFERENCE A.PLD

B.HTM

B1.AU

B2.PNG

B3.JPG

REFERENCE B.PLD

C.HTM

C1.PNG

C2.PNG

C3.PNG

REFERENCE C.PLD

D.HTM

D1.PNG

D2.PNG

REFERENCE D.PLD

A.PLD

B.PLD

C.PLD

D.PLD

REFERENCE STARTUP.PLD

DISCERR.HTM

OTHER-FILES

TITLE: DATA STORAGE MEDIUM HAVING
       INFORMATION FOR CONTROLLING
       BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

FIG. 19

VOLUME SPACE

| VOLUME AND FILE CONTROL INFORMATION REGION | DVD VIDEO DATA | DVD INTERACTIVE DATA | OTHER DATA |

VIDEO_TS.IFO/VTS_01_0.IFO/ VTS_01_1.VOB ...

STARTUP.HTM/STARTUP.PLD/A.HTM A1.PNG, A2.PNG, ...

TITLE: DATA STORAGE MEDIUM HAVING
INFORMATION FOR CONTROLLING
BUFFERED STATE OF MARKUP ...
INVENTORS: Hyun-Kwon CHUNG et al
SERIAL NO.:
DOCKET NO.: 1793.1073

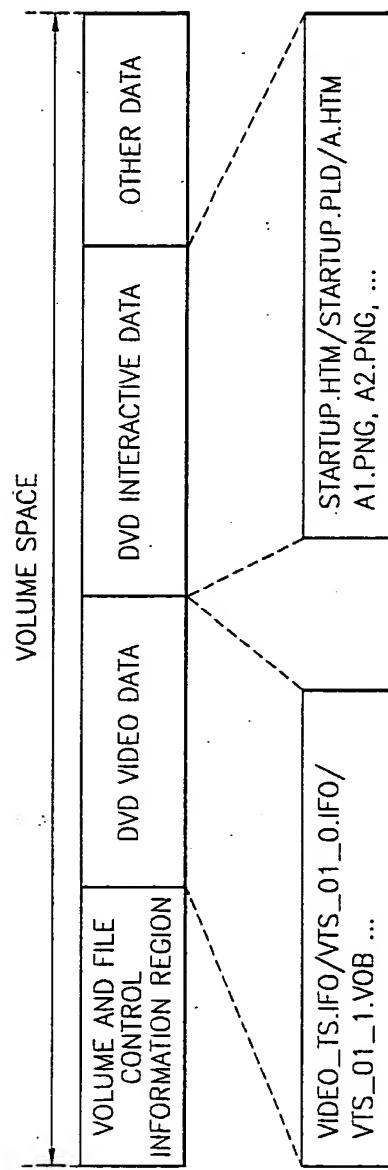FIG. 20